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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/805,333	03/12/2001	Subramanian Meiyappan	CISCP675	1800
26541	7590	05/19/2005	EXAMINER	
RITTER, LANG & KAPLAN P.O. BOX 2448 SARATOGA, CA 95070			DO, CHAT C	
			ART UNIT	PAPER NUMBER
			2193	

DATE MAILED: 05/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/805,333

Applicant(s)

MEIYAPPAN, SUBRAMANIAN

Examiner

Chat C. Do

Art Unit

2193

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 March 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19, 21 and 23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-2, 4-8, 10-14, 16-19 and 21-22 is/are rejected.
- 7) ☒ Claim(s) 3, 9, 15 and 23 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. This communication is responsive to Amendment filed 03/25/2005.
2. Claims 1-19 and 20-23 are pending in this application. Claims 1, 7, and 13 are independent claims. In Amendment, claims 22-23 are added. This Office Action is made final.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-2, 4-8, 10-14, 16-19 and 21-22 are rejected under 35 U.S.C. 102(e) as being anticipated by Saints et al. (U.S. 6,430,170).

Re claim 1, Saints et al. disclose in Figures 3-5 a method for generating a random value (abstract and Figures 4-5), method comprising: monitoring a signal obtained from a communication channel (col. 2 lines 19-23 and lines 38-42 wherein the communication channel is the wireless channel), communication channel being part of a communication network signal being arranged to include data (e.g. col. 1 lines 19-24 and col. 2 lines 25-35), signal further including additive noise (e.g. col. 2 lines 21-22), wherein communication network is arranged to implement access to the internet (e.g. col. 1 lines

45-49); sampling signal to generate a random value (e.g. energy sample); and storing random value (e.g. output of 410).

Re claim 2, Saints et al. further disclose in Figures 3-5 using random value as input to a cryptographic key generation process (e.g. col. 1 lines 50-60).

Re claim 4, Saints et al. further disclose in Figures 3-5 monitoring a digital signal represented by multiple bits (e.g. Figure 4 and abstract lines 10-12).

Re claim 5, Saints et al. further disclose in Figures 3-5 reordering multiple bits prior to sampling (e.g. 402).

Re claim 6, Saints et al. further disclose in Figures 3-5 output of an analog to digital converter (Figure 1 inherently at the receiver site or cell phone).

Re claim 7, it is an apparatus claim of claim 1. Thus, claim 7 is also rejected under the same rationale as cited in the rejection of rejected claim 1.

Re claim 8, it is an apparatus claim of claim 2. Thus, claim 8 is also rejected under the same rationale as cited in the rejection of rejected claim 2.

Re claim 10, it is an apparatus claim of claim 4. Thus, claim 10 is also rejected under the same rationale as cited in the rejection of rejected claim 4.

Re claim 11, it is an apparatus claim of claim 5. Thus, claim 11 is also rejected under the same rationale as cited in the rejection of rejected claim 5.

Re claim 12, it is an apparatus claim of claim 6. Thus, claim 12 is also rejected under the same rationale as cited in the rejection of rejected claim 6.

Re claim 13, it is an apparatus claim of claim 1. Thus, claim 13 is also rejected under the same rationale as cited in the rejection of rejected claim 1.

Re claim 14, Saints et al. further disclose in Figures 3-5 a sampler that samples signal to generate random value (Figure 4).

Re claim 16, Saints et al. further disclose in Figures 3-5 signal is a digital signal (abstract lines 10-12).

Re claim 17, it is an apparatus claim of claim 5. Thus, claim 17 is also rejected under the same rationale as cited in the rejection of rejected claim 5.

Re claim 18, it is an apparatus claim of claim 6. Thus, claim 18 is also rejected under the same rationale as cited in the rejection of rejected claim 6.

Re claim 19, Saints et al. further disclose in Figures 3-5 the signal further includes a modulation signal, and the additive noise is AWGN (col. 1 lines 25-49 and col. 2 lines 19-22).

Re claim 21, Saints et al. further disclose in Figures 3-5 communication network is one of a wireless communication network (abstract lines 1-4), a data over cable network, and a DSL network.

Re claim 22, Saints et al. further disclose in Figures 3-5 storing random value includes clocking random value into a register (e.g. 406 in Figure 4).

Allowable Subject Matter

5. Claims 3, 9, 15, and 23 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

6. Applicant's arguments filed 03/25/2005 have been fully considered but they are not persuasive.

a. The applicant argues in page 6 last paragraph for claim 1 that the cited reference by Saints does not disclose a step of storing the random value.

The examiner respectfully submits that the random values must store in a register/buffer for further processing as checking the randomness.

b. The applicant argues in page 7 second paragraph for claims 2-6, 19, and 20 that the cited reference by Saints does not disclose the step of reordered multiple bits prior to sampling.

The examiner respectfully submits that in column 9 lines 1-7 the cited reference clearly discloses the step of reordered multiple bits prior to sampling by testing the randomness of input sequences and rejects easily guessed numbers.

c. The applicant argues in page 7 last paragraph for claim 19 that the cited reference by Saints does not disclose the noise is AWGN.

The examiner respectfully submits that inherently statistically and mathematically Gaussian noise is the best fit model noise in wireless system due its uniform and uncorrelated characteristics.

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d. The applicant argues in page 8 first paragraph for claim 21 that the cited reference by Saints does not disclose a communication network is one of a wireless communication network, a data over cable network, and a DSL network, particularly Saints does not appear to teach or even suggest a communication network that is a DSL network.

The examiner respectfully submits that the claim language requires only one network from a set of network as a wireless communication network, a data over cable network, and a DSL network. For examination, the examiner consider the one network is the wireless communication network.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

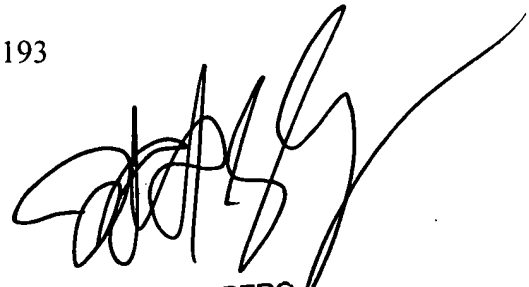
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chat C. Do whose telephone number is (571) 272-3721. The examiner can normally be reached on M => F from 7:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chaki Kakali can be reached on (571) 272-3719. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Chat C. Do
Examiner
Art Unit 2193

May 12, 2005



TODD INGBERG
PRIMARY EXAMINER